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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,563	06/30/2003	Michael J. Berardi	60655.0100	2297
20322	7590	07/27/2005		
SNELL & WILMER ONE ARIZONA CENTER 400 EAST VAN BUREN PHOENIX, AZ 850040001			EXAMINER HESS, DANIEL A	
			ART UNIT 2876	PAPER NUMBER

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/611,563	<b>Applicant(s)</b> BERARDI ET AL.	
	<b>Examiner</b> Daniel A. Hess	<b>Art Unit</b> 2876	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This action is in response to 5/24/2005 request for continuing examination (RCE).

### *Claim Rejections - 35 USC § 112*

Claims 16-18 and 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of the above claims includes a reference to a particular brand of dye and a name used in marketing the dye. The makeup of the dye could change, and thus the meaning of the claim could change.

**In order to make the above claims definite, actual chemical compositions would need to be conveyed.**

### *Response to Arguments*

Applicant's arguments filed 4/26/2005 have been fully considered but they are not persuasive.

The applicant has argued against the combination of Mundigl and Kilmer. The examiner disagrees, and the following is a summary of the examiner's logic:

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- Having a transparent or translucent card was known
- Having cards with transponders was known

Combining two above features in one card would have been obvious to obtain the benefits of each. The combination is a straightforward matter, because the transparent aspect and the transponder aspect are essentially unrelated and do not affect each other from a technical standpoint. Thus combining the two references would create no problems.

Regarding particular arguments made by the applicant, the applicant has argued (page 15 of 4/26/05 arguments) that Kilmer 'leads away' from the combination. The examiner disagrees and notes that the principle of 'teaching away' is primarily suited to cases where, if modified a certain way an invention would not operate as originally intended.

Also on page 15, the applicant argues that no support can be found in Kilmer to make the combination. However, motivation need not come from Kilmer; it can come from other references, or, as in the present case, it can come from general knowledge in the art.

A motivation has been provided, namely to provide Mundigl's card with the added capability of transponder-based communication.

**The examiner notes that multiple systems on a single card are common. The examiner's own USPTO Employee ID badge has contact-based communication capability,**

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**wireless communications ability, and optical communications capability (a barcode) all on a single card.**

The applicant has further argued (page 18) that the combination of Kilmer and Mundigl fails to teach or fairly suggest an authentication circuit.

Firstly, the claims do not recite a particular authentication circuit but merely state that an interrogation signal is authenticated.

Secondly, this limitation can simply be meant by a card which responds to interrogation by identifying itself. This is the most basic and fundamental transponder-card response. Indeed the term RFID which is used to describe these transponder based cards stands for radio frequency identification.

### ***Claim Rejections - 35 USC § 103***

Claims 1, 2, 4, 5, 7-11, 13, 14, 19, 23, 25, 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer et al. (GB-A-1,371,254) in view of Mundigl et al. (US 5,809,633).

Re claim 1: Kilmer teaches a card that is transparent in the visible range (page 1, line 37). There are a plurality of layers: a first layer, PVC that is permeable in visible and infrared (page 1, lines 40-46) and a second layer of PVAC that is permeable in the visible but machine recognizable in the infrared (page 1, lines 46-50). Machine readability is based on gallium

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arsenide detectors (page 1, line 35, 55-60 and 75-80). There is coding in the form of perforations (punched holes in the PVAC layer – page 1, line 58).

Kilmer fails to teach that the card contains one or more transponders.

Mundigl teaches (entire document) a card with and RFID transponder system.

In view of Mundigl's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known RFID / transponders of Mundigl in the card of Kilmer because this permits sophisticated data exchange with the card by radio.

As for having multiple transponders, this can be considered repetition of parts, with the clear advantage of redundancy in case one system breaks.

As for a 'transponder system database' this can be something as simple as one piece of data. All transponders generally have at least an ID.

Re claim 2: The claim recites many types of cards, all of which Kilmer's system could be used for.

Re claims 4/5: There is coding in the form of perforations (punched holes in the PVAC layer – page 1, line 58).

Re claim 7: As discussed re claim 1 above, the presence of a second RF interrogation system would have been an obvious repetition of parts in case a first interrogation system failed.

Re claim 8: Polymers are simply plastics, which are notoriously old and well known in cards.

Re claim 9/10/14: See Kilmer, page 1, lines 46-50: The infrared (i.e. invisible) compound is at least a chemical.

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Re claim 11: Substitution of the compound of Kilmer with infrared inks would be equivalent: Wessel (US 4,583,766) is exemplary.

Re claim 13: Infrared is optically recognizable.

Re claim 19: PET plastic is a known material in the art to achieve durability: Riedl (US 5,928,788) uses PET compounds (column 2, line 52) and notes (column 1, lines 45-50) that they improve the temperature resistance and physical durability of the card as well as enhance recyclability.

In view of Riedl's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known PET because PET compounds produce a more durable card.

Re claim 23/25: Again, duplication of components, which has been discussed re claim 1 above can be considered obvious. One would have been motivated to have such a system so that two communication channels can be open simultaneously, increasing bandwidth, in the same way that a computer network has more bandwidth with more pathways.

Re claim 28: Normally a transponder communicates at least an ID; this can be considered standard.

Re claim 29: Opening communication channels by employing encryption has long been known in the art. Witness, for example, SSL on the Internet.

Re claim 30: Batteries in smart cards have long been known; there are many examples thereof.

Re claims 31/32: Cards with biometric security are old and well-known in the art; the motive is added security. See for example, US 6,494,380.

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Re claim 33: The card resulting from the combination of Kilmer and Mundigl re claim 1 above meets the limitations of claim 33.

Re claim 34: See discussion re claim 2 above.

Re claim 35: Kilmer uses what can be considered a coating.

Claims 3, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer as modified by Mundigl as applied to claim 1 above, in further view of Koshizuka et al. (US 5,407,893).

Kilmer/Mundigl lacks a teaching that the 2<sup>nd</sup> layer is extrusion-coated to the first.

Koshizuka teaches (column 10, lines 15-16 and 19-20) extrusion coating to bond layers together.

In view of Koshizuka's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known extrusion coating as taught by Koshizuka into the teachings of Kilmer because this helps achieve high stiffness and excellent durability (Koshizuka , column 1, lines 5-10).

Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer/Mundigl as applied to claim 1 above, in view of Blumel et al. (US 4,672,021).

Kilmer/Mundigl fails to specifically point out the presence of one of a binder, UV absorber, reflector, antioxidant, optical brightener, color shifter, chemical to improve processing,



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or a chemical to adjust rheological properties.

Blumel shows (see title; abstract, lines 8-11) a layer compound applied to a substrate having dye and a binder.

In view of Blumel's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known binder in a dye compound which is applied to a surface as taught by Blumel because, a binder helps facilitate sticking to the surface on which a compound is placed, and it is desirable to have an infrared-blocker stick permanently to the surface of the card of Kilmer.

Claims 36-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilmer as modified by Mundigl as applied to claim 1 above, in further view of Kiekhaefer (US 6,290,137).

Re claims 47-53, 59, 60 and other claims reciting the limitation, '... substantially covering ...': Kilmer/Mundigl fails to teach that the IR machine recognizable compound covers the entire surface of the card.

Kiekhaefer (see entire document) teaches exactly this in a clear card.

In view of Kiekhaefer's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known total coverage with an IR blocking material as taught by Kiekhaefer in the teachings of Kilmer/Mundigl because this improves machine detection of a clear card, a goal in Kiekhaefer.

Re claim 36: Kilmer/Mundigl teach most of the claimed limitations. It is notoriously old and well-known in the art that both magnetic stripes and holograms can be added to cards for added information-bearing and/or security.

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Re claim 37: See discussion re claim 19 (i.e. Riedl) on the use of PET layers for strength / durability.

Re claim 38: Adhering card layers with adhesive or laminate is a technique which is employed in the vast majority of all plastic cards.

Re claim 39/40: See discussion re claim 1, above.

Re claim 41: Most limitations have been met in the discussion of claim 1, above. See discussion of claim 19 for use of PET layers.

Re claim 42: Most limitations have been met in the discussion of claim 1, above. PVC plastic is just one of many materials which can be used in cards for sturdiness and durability.

Re claims 43-46: The limitations of these claims have been taught in one form or another among the claims listed above.

Re claims 54-58: The presence of a magnetic stripe in a transaction card is notoriously, old, well-known and was standard at the time of the invention.

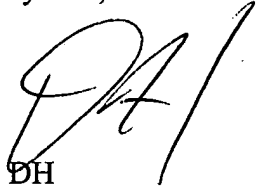
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH  
7/22/2005

DANIEL STCYR  
PRIMARY EXAMINER

